## TECHNICAL COMMITTEE REPORT AND CURRICULUM GUIDE

#### *FOR*

## SPORTS MEDICINE/ATHLETIC TRAINING



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# SPORTS MEDICINE/ATHLETIC TRAINING

This report was prepared by the Idaho Division of Vocational Education Health Occupations Education Boise, Idaho

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#### INTRODUCTION

The curriculum development process undertaken by the Idaho Division of Vocational Education involves active participation of industry personnel. For development of the Sports Medicine/Athletic Training curriculum, where employability of students who complete training is not an expected outcome, the majority of the committee was composed of athletic trainers who are employed in high schools. A Technical Committee Report is prepared on completion of the Committee's assignment. This publication is the Technical Committee Report for Sports Medicine/Athletic Training.

The Task List prepared by the Technical Committee reflects the skills currently necessary for a student to assist with athletic teams and to advance in the occupational field through continued education. Task Lists were grouped according to areas that generally apply to athletic training. These areas were used as the basis for modules in the statewide Curriculum Guide development process. The Technical Committee segment is the single most significant step in the curriculum development process.

Technical committee members developed the Statewide Curriculum Guide. These individuals have written Performance Objectives for each Task and the subsequent Enabling Objectives for each Performance Objective. The committee members prepared material in a competency-based format so as to have an effective and efficient methodology for determining student progress. The Statewide Guides are designed as the prime determiner of program content. All programs must follow the established Guide in order to be approved for operation. Any deviation from this Guide requires written approval from the respective program supervisor at the Division of Vocational Education. It is not the intent of the Division that all programs be designed to be exactly the same, but assurance is needed that the program meets the minimum standards for operation, based on the community needs, equipment, and facilities available to the local school or institution.

The Technical Committee Report does not dictate the level of instruction. The Task List developed reflects the fields of Sports Medicine/Athletic training. Schools and institutions determine what skills can be taught and what depth of instruction can be provided. They must choose the Tasks to be taught from the Technical Committee Report but are free to determine how many or which ones can be incorporated into their program. Advisory committees are used by institutions offering this training program to reflect local training and employability trends.

The Profile is used as a cumulative record of each student's progress. They are printed in a folder format and have performance scales for each Task so that student competence can be recorded for individual skills or tasks. This document will become the main component for articulation activities in the event that the student desires to go on for additional training or education.

#### ACKNOWLEDGEMENTS

The Technical Committee process involved personnel from education and the health care industry who were selected by the Division with assistance of personnel in the specific field. People who serve on the Committees are nominated by local administrators and other personnel. In addition persons who could not attend the committee meetings served as readers/reviewers of the curriculum. These people serve with the approval of their employers and give their time and energies to the project without cost. The Division provided reimbursement for per diem and travel. We are indebted greatly to these representatives and to their employers for the resources so freely given to the pursuit of ensuring that Idaho students receive the most current training and education possible.

Therefore the Division and administrators of programs statewide are deeply indebted to the following people who served on the Technical Committee and who reviewed the curriculum:

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Your support and assistance is very greatly appreciated. Your patience for enduring the educational process is also noted. The students and instructional staff will be much more able to accomplish their respective goals as a result of your contributions.

Dorothy M. Witmer, EdD, RN, C Supervisor, Health Occupations Education

#### IMPORTANT INFORMATION

Delivery of The Sports Medicine/Athletic Training Curriculum. The Sports Medicine/Athletic Training Program currently existing in Idaho secondary schools is offered by the physical education/athletic training instructor. With the development of the standardized curriculum in this Technical Committee Report, it is anticipated that where a Health Occupations program is established that the Sports Medicine/Athletic Training instructor will collaborate with the Health Occupations instructor to link the two programs. The linkage will take the form of an agreement whereby students will enroll in Health Occupations Year One and select Sports Medicine/Athletic Training as a second year option. It is recommended that Health Occupations Year One students be juniors but sophomores may be admitted upon request of the student and selection by the instructor.

Technical Committee members who developed this report recommended that it not be mandatory for students to enroll in the Health Occupations first before taking Sports Medicine/Athletic Training. Please note, however, that the foundation building in Health Occupations Year One is helpful to students who want to continue in the health care field and prepares the student for success in postsecondary health occupations educational programs. The Sports Medicine/Athletic Training program will help students who choose to go to postsecondary athletic training programs.

**Student Employability.** Committee members discussed the lack of employability for students who complete the Sports Medicine/Athletic Training program. To increase employability opportunities it is suggested that where possible students should cross train into the Physical Therapy Aide program that is a second year option for Health Occupation students. It becomes very important then, if students are to benefit from the training programs that could be available, that the Health Occupations and Sports Medicine/Athletic Training instructors work together to provide the maximum benefits and opportunities for students.

**Instructor Qualifications.** The instructor for this course must be an athletic trainer registered with the Idaho State Board of Medicine. (Other requirements may apply.)

**Length of the Program.** This program is two semesters in length using the usual one class period per day. Clinical experiences are part of the program. The Technical Committee recommends students have a variety of experiences in clinical settings for a minimum of 30 hours per semester. These experiences are usually scheduled outside of the regular class time.

#### Recommended Teacher Reference Textbooks.

<u>Concepts of Athletic Training</u> by Pfeiffer, Ronald P., Mangus, Brent C. (1995). Publishers, Boston: Jones and Bartlett, 1-800-832-0034.

<u>Principles of Athletic Training</u>, 8th Edition by Arnheim, Daniel D. (1993). Published by Mosby Year Book.

Sports Medicine (In Press) by Irvin, Dr. Richard. Published by Prentice Hall.

#### For Students:

<u>Basic Athletic Training</u>. Obtained from Cramer Products 1-800-345-2231. Cramer Products is also a resource for other training manuals and supplies.

PROGRAM AREA: Health Occupations

EFFECTIVE DATE: June, 1995

#### IDAHO DIVISION OF VOCATIONAL EDUCATION

PROGRAM TITLE: Sports Medicine/Athletic Training

IDAHO CODE NUMBER: 2098 CIP#: 18.1030

I. <u>MAJOR CONCEPTS/CONTENT</u>: The purpose of this program is to prepare students in skills used in the fields of Sports Medicine/Athletic Training. The content includes, but is not limited to, roles and responsibilities of team members, emergency and non-emergency procedures, anatomy and physiology, injury evaluation, equipment and modalities of rehabilitation, injury and disease prevention, and protective equipment. The program will provide excellent background for continuation in postsecondary level health occupation programs and athletic training programs.

- II. <u>CERTIFICATE AWARDED</u>: Upon completion of Health Occupations Year One and the Sports Medicine/Athletic Training program, the student will receive a certificate of completion.
   Certificates are issued by the State Division of Vocational Education, Health Occupations.
- III. <u>CLINICAL ACTIVITIES</u>: The recommended minimum supervised clinical experience is 30 hours per semester. However, this is a competency-based program, therefore time will vary for each student according to the individual's achievement of competencies.
- IV. <u>SPECIAL NOTES</u>: The student taking this specialized program may or may not have first completed Health Occupations Year One. Requirements may differ at each school where the program is offered.
- V. <u>INTENDED OUTCOMES</u>: After successfully completing this program and under the supervision of a qualified instructor, the student will be able to:
  - 01. Identify and describe the role and responsibilities of the Sports Medicine team.
  - 02. Demonstrate appropriate emergency and non-emergency procedures.
  - 03. Explain and demonstrate knowledge of anatomy and physiology as it relates to athletic injuries.
  - 04. Explain and describe the steps of an injury evaluation.
  - 05. Demonstrate the use of equipment and modalities according to the principles of rehabilitation.
  - 06. Identify and demonstrate injury and disease prevention.
  - 07. Explain and demonstrate the use of protective equipment.

PROGRAM AREA: Health Occupations

EFFECTIVE DATE: June, 1995

#### IDAHO DIVISION OF VOCATIONAL EDUCATION

PROGRAM TITLE: Sports Medicine/Athletic Training

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#### 01.0 ROLE AND RESPONSIBILITIES OF THE SPORTS MEDICINE TEAM

The student will be able to:

#### TASKS:

- 01.01 Identify and describe the role of each member of an athletic program's Sports Medicine Team.
- 01.02 Describe athletic training.
- 01.03 Identify the many career settings within sports medicine and athletic training.
- 01.04 Practice in accordance to legal and ethical guidelines.

#### 02.0 APPROPRIATE EMERGENCY AND NON-EMERGENCY PROCEDURES

The student will be able to:

#### TASKS:

- 02.01 Perform an initial assessment of an injured athlete.
- 02.02 Demonstrate stabilization of sports injury.
- 02.03 Perform universal precautions.
- 02.04 Demonstrate taping and wrapping of sports injury.

#### 03.0 KNOWLEDGE OF ANATOMY AND PHYSIOLOGY

The student will be able to:

#### TASKS:

- 03.01 Identify and define the medical terms used in sports injuries.
- 03.02 Explain the structure and function of the skeletal system and relate to athletic injury.
- 03.03 Explain the structure and function of the muscular system and relate to athletic injury.
- 03.04 Explain the structure and function of the nervous system and relate to athletic injury.
- 03.05 Explain the structure and function of circulatory system and relate to athletic injury.
- 03.06 Explain the structure and function of the respiratory system and relate to athletic injury.

#### 04.0 STEPS OF AN INJURY EVALUATION

The student will be able to;

#### TASKS:

- 04.01 Recognize sports injuries.
- 04.02 Demonstrate the steps of an injury evaluation.
- 04.03 Participate in exercises to practice evaluation.

### 05.0 <u>USE OF EQUIPMENT AND MODALITIES ACCORDING TO THE PRINCIPLES OF</u> REHABILITATION

The student will be able to:

#### TASKS:

- 05.01 Demonstrate the use of equipment.
- 05.02 Demonstrate the application of modalities.

#### 06.0 <u>INJURY AND DISEASE PREVENTION</u>

The student will be able to:

#### TASKS:

- 06.01 Describe methods of injury prevention.
- 06.02 Discuss various diseases relative to sports including necessary precautions.
- 06.03 Explain and demonstrate the use of protective equipment

#### 07.0 PRINCIPLES OF CONDITIONING AND FITNESS

The student will be able to:

#### TASKS:

- 07.01 Explain the body's response to conditioning.
- 07.02 Explain the difference between terms used in conditioning and fitness.
- 07.03 Explain the importance of nutrition in sports performance.

CURRICULUM GUIDE PROGRAM AREA: Health Occupations

IDAHO DIVISION OF VOCATIONAL EDUCATION EFFECTIVE DATE: June, 1995

PROGRAM TITLE: Sports Medicine/Athletic Training

IDAHO CODE NUMBER: 2098 CIP#: 18.1030

### 01.0 IDENTIFY AND DESCRIBE THE ROLE AND RESPONSIBILITIES OF THE SPORTS MEDICINE TEAM

### 01.01 TASK: <u>IDENTIFY AND DESCRIBE THE ROLE OF EACH MEMBER OF AN ATHLETIC PROGRAM'S SPORTS MEDICINE TEAM</u>

#### **ENABLING OBJECTIVES:**

- 1. Identify and describe the role of athletic trainer.
- 2. Identify and describe the role of physical therapist.
- 3. Identify and describe the role of orthopedic surgeon.
- 4. Identify and describe the role of family doctor.
- 5. Identify other team members and how the athletic trainer interacts with them (i.e. coach, parent, athlete, dentist, nutritionist, sports psychologist, exercise physiologist, etc.)

#### 01.02 TASK: DESCRIBE ATHLETIC TRAINING

#### **ENABLING OBJECTIVES:**

- 1. Recognize the need for athletic training.
- 2. State the purpose of athletic training.
- 3. Explain the functions of the athletic trainer has as a member of the Sports Medicine team.

### 01.03 TASK: <u>IDENTIFY THE MANY CAREER SETTINGS WITHIN SPORTS MEDICINE AND ATHLETIC TRAINING</u>

#### **ENABLING OBJECTIVES:**

- 1. Identify the careers in educational settings.
- 2. Identify the careers in physical therapy clinics.
- 3. Identify the careers in professional teams.
- 4. Identify the careers in industry.
- 5. Identify the careers in health clubs.
- 6. Identify the careers in medical clinics/hospitals.

#### 01.04 TASK: PRACTICE IN ACCORDANCE TO LEGAL AND ETHICAL GUIDELINES

#### **ENABLING OBJECTIVES:**

- 1. Demonstrate documentation procedures.
- 2. Identify limitations of the role and responsibilities of all Sports Medicine team members.
- 3. Protect athlete/patient rights.
- 4. Define legal terms: Tort, Negligence, Reasonable Care, Good Samaritan Act, Confidentiality, and Informed Consent.

#### 02.0 DEMONSTRATE APPROPRIATE EMERGENCY AND NON-EMERGENCY PROCEDURES

#### 02.01 TASK: PERFORM AN INITIAL ASSESSMENT OF AN INJURED ATHLETE

#### **ENABLING OBJECTIVES:**

- 1. Perform a primary survey: Airway, Breathing, Circulation (A, B, C).
- 2. Apply CPR as needed (complete requirements for CPR certification).
- 3. Perform secondary survey.

#### 02.02 TASK: <u>DEMONSTRATE STABILIZATION OF SPORTS INJURY</u>

#### **ENABLING OBJECTIVES:**

- 1. Immobilize spine/extremities.
- 2. Stabilize athletes with seizures.
- 3. Control bleeding.
- 4. Provide care for environmentally caused conditions.
- 5. Provide care for blisters, contusions, cuts, and abrasions.
- 6. Apply the principles and procedures of Rest, Ice, Compression, Elevation (RICE).

#### 02.03 TASK: PERFORM UNIVERSAL PRECAUTIONS

#### **ENABLING OBJECTIVES:**

- 1. Perform hand washing.
- 2. Perform gloving.
- 3. Demonstrate cleansing and disposal techniques.

#### 02.04 TASK: DEMONSTRATE TAPING AND WRAPPING OF SPORTS INJURY

#### **ENABLING OBJECTIVES:**

- 1. Discuss reasons for taping and wrapping.
- 2. Describe the various taping and wrapping supplies and products and their uses.
- 3. Demonstrate methods of taping.
- 4. Demonstrate methods of wrapping.

#### 03.0 EXPLAIN AND DEMONSTRATE KNOWLEDGE OF ANATOMY AND PHYSIOLOGY.

#### 03.01 TASK: IDENTIFY AND DEFINE THE MEDICAL TERMS USED IN SPORTS INJURES.

#### **ENABLING OBJECTIVES:**

- 1. Identify and define the medical terms used for anatomical positions, movements, planes, and postures relative to functional anatomy.
- 2. Identify and apply medical terms as they relate to sports medicine and injuries.

### 03.02 TASK: EXPLAIN THE STRUCTURE AND FUNCTION OF THE SKELETAL SYSTEM AND RELATE TO ATHLETIC INJURY

#### **ENABLING OBJECTIVES:**

- 1. Identify/label the parts of the system.
- 2. Describe the functions of the system.
- 3. Relate the system to sports injuries.

### 03.03 TASK: EXPLAIN THE STRUCTURE AND FUNCTION OF THE MUSCULAR SYSTEM AND RELATE TO ATHLETIC INJURY

#### **ENABLING OBJECTIVES:**

- 1. Identify/label the parts of the system.
- 2. Describe the functions of the system.
- 3. Relate the system to sports injuries.

### 03.04 TASK: EXPLAIN THE STRUCTURE AND FUNCTION OF THE NERVOUS SYSTEM AND RELATE TO ATHLETIC INJURY

#### **ENABLING OBJECTIVES:**

- 1. Identify/label the parts of the system.
- 2. Describe the functions of the system.
- 3. Relate the system to sports injuries.

### 03.05 TASK: EXPLAIN THE STRUCTURE AND FUNCTION OF THE CIRCULATORY SYSTEM AND RELATE TO ATHLETIC INJURY

#### **ENABLING OBJECTIVES:**

- 1. Identify/label the parts of the system.
- 2. Describe the functions of the system.
- 3. Relate the system to sports injuries.

### 03.06 TASK: EXPLAIN THE STRUCTURE AND FUNCTION OF THE RESPIRATORY SYSTEM AND RELATE TO ATHLETIC INJURY

#### **ENABLING OBJECTIVES:**

- 1. Identify/label the parts of the system.
- 2. Describe the functions of the system.
- 3. Relate the system to sports injuries.

#### 04.0 EXPLAIN AND DESCRIBE THE STEPS OF AN INJURY EVALUATION.

#### 04.01 TASK: <u>RECOGNIZE SPORTS INJURIES</u>

#### **ENABLING OBJECTIVES:**

- 1. Recognize chronic sports injuries.
- 2. Recognize acute sports injuries.

#### 04.02 TASK: <u>DEMONSTRATE THE STEPS OF AN INJURY EVALUATION</u>

#### **ENABLING OBJECTIVES:**

- 1. Identify the steps of an injury evaluation.
- 2. Demonstrate History, Observation, Palpation, Special Tests (HOPS).

#### 04.03 TASK: PARTICIPATE IN EXERCISES TO PRACTICE EVALUATION

#### **ENABLING OBJECTIVES:**

1. Participate in mock examinations.

2. Participate in practical simulations.

### 05.0 DEMONSTRATE THE USE OF EQUIPMENT, AND MODALITIES ACCORDING TO THE PRINCIPLES OF REHABILITATION

#### 05.01 TASK: <u>DEMONSTRATE THE USE OF EQUIPMENT</u>

#### **ENABLING OBJECTIVES:**

- 1. Demonstrate the use of adaptive devices/equipment.
- 2. Demonstrate the use of exercise equipment.

#### 05.02 TASK: DEMONSTRATE THE APPLICATION OF MODALITIES

#### **ENABLING OBJECTIVES:**

- 1. Describe the effects, indications, and contraindications of various modalities.
- 2. Demonstrate the application of heat, cold, and other modalities.

#### MODULE 6. IDENTIFY AND DEMONSTRATE INJURY AND DISEASE PREVENTION

#### 06.01 TASK: DESCRIBE METHODS OF INJURY PREVENTION

#### **ENABLING OBJECTIVES:**

- 1. Recognize possible dangers in athletic settings.
- 2. Take necessary precautions against hazards.
- 3. Describe methods of injury prevention.

### 06.02 TASK: <u>DISCUSS VARIOUS DISEASES RELATIVE TO SPORTS INCLUDING NECESSARY PRECAUTIONS</u>

#### **ENABLING OBJECTIVES:**

- 1. Identify various diseases that can affect sports participation.
- 2. Discuss necessary precautions for individuals with diseases.

#### 06.03 TASK: EXPLAIN AND DEMONSTRATE THE USE OF PROTECTIVE EQUIPMENT

#### **ENABLING OBJECTIVES:**

- 1. Demonstrate the fitting of required sports equipment.
- 2. Demonstrate the fitting of optional sports equipment.

#### 07.0 EXPLAIN AND DEMONSTRATE PRINCIPLES OF CONDITIONING AND FITNESS

#### 07.01 TASK: EXPLAIN THE BODY'S RESPONSE TO CONDITIONING

#### **ENABLING OBJECTIVES:**

- 1. Explain the overload principle.
- 2. Explain Specific Adaptation to Imposed Demands (SAID).

### 07.02 TASK: EXPLAIN THE DIFFERENCE BETWEEN TERMS USED IN CONDITIONING AND FITNESS

#### **ENABLING OBJECTIVES:**

- 1. Explain the terms isometric, isotonic, and isokinetic and the differences between them.
- 2. Explain the terms strength, power, and endurance and the difference between them.
- 3. Explain the principles of cardiovascular endurance.
- 4. Explain the difference between aerobic and anaerobic endurance.

#### 07.03 TASK: EXPLAIN THE IMPORTANCE OF NUTRITION IN SPORTS PERFORMANCE

#### **ENABLING OBJECTIVES:**

- 1. Identify nutrients and food groups.
- 2. Perform a personal nutritional assessment.
- 3. Using a simulation, perform a diet and exercise analysis, including a pre-game meal.
- 4. Identify weight control principles and eating disorders.
- 5. Discuss use of legal versus illegal dietary supplementation.
- 6. Describe the principles of fluid balance.